WHAT IS CLAIMED IS:

1. A network device connected to a host, comprising:

an address table configured to store a plurality of entries;

a register accessible by the host and configured to store data for an entry in the address table; and

table access logic configured to receive a command from the host to insert a new entry in the address table, identify a location in the address table to store the new entry in response to the command, and store the data from the register in the address table at the identified location.

2. The network device of claim 1, wherein the entries include bin entries and heap entries, at least one of the bin entries including a pointer to one of the heap entries, at least one of the heap entries including a pointer to another one of the heap entries.

3. The network device of claim 1, wherein the table access logic is further configured to store data in the register indicating that the data for the new entry has been stored in the address table.

4. The network device of claim 1, wherein the data stored in the register includes at least one of a source address, a destination address, and a virtual local area network (VLAN) identifier.

5. The network device of claim 1, wherein when identifying a location in the address table, the table access logic is configured to apply a hashing function to the data in the register, and identify the location in the address table using the hashed data.

6. The network device of claim 1, wherein the table access logic is further configured to receive a modify table entry command from the host, locate one of the entries in the address table to modify using the data from the register, and overwrite the located entry with the data from the register.

7. The network device of claim 6, wherein the data stored in the register includes a source address and a virtual local area network (VLAN) identifier; and

wherein when locating one of the entries to modify, the table access logic is configured to read the source address and the VLAN identifier from the register and find one of the entries in the address table with a matching source address and VLAN identifier.

8. The network device of claim 1, wherein the table access logic is further configured to receive a delete table entry command from the host, locate one of the entries in the address table to delete using the data from the register, and delete the located entry from the address table.

9. The network device of claim 8, wherein the data stored in the register includes a source address and a virtual local area network (VLAN) identifier; and

wherein when locating one of the entries to delete, the table access logic is configured to read the source address and the VLAN identifier from the register and find one of the entries in the address table with a matching source address and VLAN identifier.

10. The network device of claim 1, wherein the table access logic is further configured to receive a search address table command from the host, locate one of the entries in the address table in response to the search address table command, and store contents of the located entry in the register.

11. A network device connected to a host, comprising:

an address table configured to store a plurality of entries;

a register configured to store data corresponding to one of the entries in the address table; and

table access logic configured to receive a delete table entry command from the host, apply a hashing function to the data in the register, search the address table to locate one of the entries to delete using the hashed data, delete the located entry from the address table, and store data in the register that indicates that the located entry has been deleted.

12. The network device of claim 11, wherein the data stored in the register includes a source address and a virtual local area network (VLAN) identifier; and

wherein when searching the address table, the table access logic is configured to read the source address and the VLAN identifier from the register and find one of the entries in the address table with a matching source address and VLAN identifier.

13. The network device of claim 11, wherein the table access logic is further configured to receive an insert table entry command from the host, find a location in the address table to create a new entry in response to the insert table entry command, and store the data from the register at the location in the address table.

14. The network device of claim 11, wherein the entries include bin entries and heap entries, at least one of the bin entries including a pointer to one of the heap entries, at least one of the heap entries including a pointer to another one of the heap entries.

15. The network device of claim 11, wherein the table access logic is further configured to receive a search address table command from the host, locate one of the entries in the address table in response to the search address table command, and store contents of the located entry in the register.

16. A network device connected to a host, comprising:

an address table configured to store a plurality of entries having a plurality of fields;

a register accessible by the host and configured to store data corresponding to at least one of the fields of one of the entries in the address table; and

table access logic configured to receive a command from the host to search the address table, locate the one entry in the address table in response to the command and using the data from the register, store contents of the one entry in the register, and store additional data in the register indicating that the address table has been searched.

17. The network device of claim 16, wherein the at least one field includes a source address or a destination address.

18. The network device of claim 17, wherein when locating the one entry, the table access logic is configured to read the source address or destination address from the register

and find the one entry in the address table with a matching source address or destination address.

19. The network device of claim 16, wherein the table access logic is further configured to receive an insert table entry command from the host, find a location in the address table to create a new entry in response to the insert table entry command, and store the data from the register at the location in the address table.

20. The network device of claim 16, wherein the table access logic is further configured to receive a delete table entry command from the host, locate one of the entries in the address table to delete using the data from the register, and delete the located entry from the address table.